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Report to the Acting Secretary of the  
Navy

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## NAVY SUPPLY

# Improved Backorder Management Will Reduce Material Costs



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United States  
General Accounting Office  
Washington, D.C. 20548

National Security and  
International Affairs Division

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March 19, 1993

Admiral Frank Kelso  
The Acting Secretary of the Navy

Dear Mr. Secretary:

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When the Navy does not cancel invalid backorders, it wastes money buying, repairing, transporting, and storing parts it no longer needs. To ensure the prompt detection and cancellation of invalid backorders, the Department of Defense (DOD) has instituted a backorder validation program. We reviewed the Navy's management of the program and (1) assessed the adequacy of the validation practices for detecting invalid backorders and (2) determined if it was appropriate for the Navy to exempt certain categories of backorders from periodic validation.

## Background

The Naval Supply Systems Command administers the Navy's supply system and provides supply management policies and procedures to inventory control points and field activities. Navy retail supply activities and individual operating units requisition needed materials from wholesale stock points. The stock points maintain quantities of materials to support their customers and replenish their stock as necessary by requisitioning materials from inventory control points. The inventory control points place requisitions they cannot fill on backorder status until additional materials can be provided through purchase or repair.

For decades, DOD has had a backorder validation program in which (1) retail supply activities and stock points are to confirm the need for outstanding orders for spare parts every 3 months and (2) inventory control points are to promptly cancel the invalid backorders detected by these periodic checks. The Navy reported that it canceled about \$163 million in unneeded backorders in calendar year 1992.

DOD Manual 4000.25-1-M, which prescribes the program's policies and procedures, requires that the inventory control points ensure, through validation by the actual user, that a continuing need exists for backordered material. In the last quarter of calendar year 1992, the two Navy inventory control points—Aviation Supply Office and Ships Parts Control Center—asked users to validate about 121,000 backorders valued at about \$2 billion. The Navy exempted an additional 55,000 backorders valued at \$443 million from the validation process.

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## Results in Brief

Despite Navy validation processes designed to detect and cancel unneeded requirements, invalid backorders continue to be overlooked during validation checks because some field activities do not follow required validation procedures. The Navy's practice of exempting whole categories of backorders from the validation process also prevents many invalid backorders from being identified and canceled. When invalid backorders are not identified and canceled in a timely manner, unneeded procurements and repairs and excess inventories result.

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## Validation Procedures Are Not Consistently Followed

DOD directives and Navy procedures for the backorder validation program require that four times each year Navy field activities conduct an item-by-item review with the user to ensure that each nonexempted item is still needed in the quantity specified. Despite these requirements, the Navy did not identify and cancel a large number of invalid backorders as part of the quarterly validation process. The invalid backorders we found were at field activities that did not follow required validation procedures. At these activities, personnel (1) were not aware of the procedures, (2) did not trace the need for the material to supporting documents, or (3) did not have the ultimate user verify the need for the material.

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## Visits to Field Activities Showed Diverse Results

At 6 of the 12 field activities that we visited, we found invalid backorders that should have been identified and canceled during the validation process. The invalid backorders were not identified because the field activities did not follow required validation procedures. The other six field activities followed the validation procedures, and we did not find any invalid backorders.

We reviewed a sample of 273 backorders at the 12 field activities, and identified 42 invalid backorders that should have been detected by prior Navy validation checks. Table 1 shows the number of backorders reviewed and those we found to be invalid at each activity we visited.

**Table 1: Summary of Invalid Backorders**

Activity	Number of backorders			Value of invalid backorders
	Reviewed	Invalid	Percent	
Activities not following procedures				
Jacksonville Air Station	27	15	56	\$252,715
Norfolk Air Station	61	7	11	203,175
Norfolk Supply Center	23	4	17	77,112
Willow Grove Air Station	17	12	71	11,979
Norfolk Aviation Depot	49	2	4	1,944
Lakehurst Warfare Center	12	2	17	1,929
Total	189	42	22	\$548,854
Activities following procedures				
Oceana Air Station	29	0	0	0
Cecil Field Air Station	12	0	0	0
Mayport Air Station	5	0	0	0
Newport News Supervisor of Shipbuilding	16	0	0	0
Jacksonville Aviation Depot	11	0	0	0
Kings Bay Trident Facility	11	0	0	0
Total	84	0	0	0

The following examples illustrate instances of inadequate internal controls and weak validation practices.

At Naval Air Station Jacksonville, the Aircraft Intermediate Maintenance Department cited a continuing need for 11 spectrum analyzers (NSN 6625-01-317-4865) for the H-3 helicopter. The analyzers had been on backorder for 875 days because of procurement problems and were valued at a total of \$210,100. Jacksonville supply personnel told us that they did not need the analyzers because the H-60 helicopter is replacing the H-3 helicopter. The supply technician stated that she had never received training on the quarterly validation process. Consequently, instead of ascertaining if the requirement will exceed authorized material allowances, she simply determined if the backordered equipment had been received. In response to our inquiries, Jacksonville canceled these backorders.

At Naval Air Station Norfolk, the requirements branch cited a continuing need for three backorders, ranging in age from 134 to 184 days old, for elevating fins (NSN 1075-01-275-3752) used with mine countermeasure equipment. The fins, which were valued at \$46,872, were ordered to

replenish the activity's authorized stock level. We found that the backorders were invalid because they exceeded the authorized stock level. The supply technician told us that she only checks to see if the backordered material has been received and does not review backorders to determine if on-order quantities will exceed material allowances. In response to our inquiries, Norfolk canceled these backorders.

At Naval Aviation Depot Norfolk, shop personnel cited a continuing need for a wiring harness (NSN 5995-01-272-7970) used on the F-14 aircraft. The harness had been on backorder for 573 days and was valued at \$1,910. In April 1992, shop personnel told us that the backordered material was no longer needed. Although we informed supply personnel that the backorder was invalid, they had not canceled the backorder as of December 1992.

At Naval Air Station Willow Grove, the supply department cited a continuing need for a regulator assembly (NSN 1660-01-240-2886) used on helicopter emergency exit equipment. The assembly had been on backorder for 221 days and was valued at \$199. We found this backorder to be invalid because the broken equipment for which this material was ordered was no longer at the air station. Supply department officials kept this item on backorder without a valid current need, stating that the part was difficult to obtain and could be used on other equipment when needed next. The material subsequently was received and placed in storage at Willow Grove.

### Some Activities Use Improved Validation Procedures

Some of the activities we visited had instituted controls that were independent of the quarterly validation process and went beyond the backorder validation procedures called for by DOD directives. For example, Naval Air Stations Cecil Field and Mayport and Trident Refit Facility Kings Bay perform random unannounced audits of all outstanding requisitions generated by the air and submarine squadrons. The goal of the audits is to validate requirements by checking the equipment being repaired to ensure there still is a need for the parts or by verifying that a stock requisition will not exceed equipment allowances. Six of the 12 activities we visited perform these independent validations, but only for repair parts ordered by air and submarine squadrons. According to Naval Supply Systems Command officials, the Atlantic Fleet considers these backorder validations to be a high-priority measure of the supply performance at squadrons.

Naval Air Station Oceana also has instituted additional controls. Just prior to our March 1992 visit, supply department managers directed a review of older backorders. Supply analysts first compared material on hand and on backorder with material allowance and demand data. On the basis of knowledge of the material and the local repair capability, the analysts then determined if the air station could perform satisfactorily with the material on hand and, therefore, could cancel the backorder. As a result of this review, Oceana canceled backorders for 43 items valued at \$1.4 million.

Naval Aviation Depot Norfolk automatically closes out open requisitions for aircraft repair and overhaul jobs that have been completed. Under this procedure, invalid backorders are automatically identified for cancellation.

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#### **Invalid Backorders Result in Unnecessary Procurements and Repairs**

When the validation process is followed, unneeded requirements can be canceled, thus avoiding unnecessary procurements and repairs. For example, in reporting on the April to June 1992 periodic validation results, the Ships Parts Control Center stated that it canceled 609 backorders, valued at \$10.3 million. On the other hand, if invalid backorders are not identified and canceled in a timely manner, unneeded procurements and repairs and excess inventories result. In the report on the April to June 1992 validation results, the Ship Parts Control Center stated that it could not cancel 126 invalid backorders, valued at \$742,000, because the material was on contract for delivery. The Center stated that it could not cancel another invalid backorder, valued at \$3,500, because the material was under contract for repair.

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#### **Other Field Activities May Have Similar Problems**

Because half of the field activities we reviewed did not properly apply backorder validation procedures, it is likely that similar problems exist at many Navy activities. Further, because activities not following the procedures had relatively high incidence of invalid backorders, the Navy needs to be more aggressive in assuring that, at a minimum, current procedures are followed. Periodic field visits by Naval Supply Systems Command and inventory control point officials is one way to see how well the backorder validation program is being implemented. However, field visits for this purpose currently are not being made.

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## Many Backorders Are Exempt From the Validation Process

The intent of the backorder validation program is to detect and cancel invalid backorders. However, the Navy has allowed certain categories of backorders to be exempt from the validation process. Both our tests and those of the Navy identified high percentages of invalid backorders in the exempt categories. Navy officials could not document the rationale behind the exemptions; however, by allowing them, the Navy wastes a significant amount of funds buying and repairing materials that it no longer needs.

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## The Navy Has Exempted a Large Volume of Backorders

The Navy exempts backorders for materials used on Trident submarines and ballistic missile ships from the validation program, as well as materials used in new ship construction, major modernization, and overhaul projects. The Navy also exempts backorders for initial ship outfittings and certain replenishment stocks for ships and aircraft.

In July 1992, 55,000 backorders valued at \$443 million were exempt from the validation process. The number and value of the Ships Parts Control Center's exempted backorders (41,000 valued at \$258 million) are about as high as the number and value of the backorders that it asks field activities to validate each quarter. The Aviation Supply Office's exempted backorders, 14,000 valued at \$185 million, are about 10 to 15 percent of the number and value of backorders that it asks field activities to validate each quarter.

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## Many of the Exempted Backorders Are Invalid

We reviewed a sample of 209 exempt stock replenishment backorders at 7 field activities and found that 60, about 29 percent, were invalid. Navy officials at the selected activities agreed with our determinations. Table 2 shows the results of our review.

**Table 2: Summary of Invalid Exempt Backorders**

Activity	Number of stock items			Value of invalid backorders
	Reviewed	Invalid	Percent	
Norfolk Supply Center	48	24	50	\$974,386
Cecil Field Air Station	12	4	33	767,822
Norfolk Air Station	9	4	44	432,883
Kings Bay Trident Facility	25	3	12	55,684
Mayport Air Station	43	11	26	31,585
Jacksonville Air Station	46	14	30	20,963
Newport News Supervisor of Shipbuilding	26	0	0	0
<b>Total</b>	<b>209</b>	<b>60</b>	<b>29</b>	<b>\$2,263,323</b>

The following are descriptions of some of the invalid exempt backorders we found.

In August 1992, Naval Supply Center Norfolk had on backorder one signal data computer (NSN 6605-01-124-9243) for the F-14 aircraft. At that time, however, the supply center was authorized 13 computers and had 24 on hand. After we brought this matter to the attention of supply center officials, they canceled the \$383,200 backorder for the additional computer. The backorder had been exempted from the quarterly validation process because it fit into one of the exempt stock replenishment categories.

In April 1992, Trident Refit Facility Kings Bay had on backorder two ball valve parts kits (NSN 4820-01-316-2061) for Trident submarines. At that time, the facility had a requirement for only one kit. After we brought this matter to the attention of facility officials, the facility canceled the backorder for the unneeded kit, which was valued at \$26,910.

### The Navy Also Found Invalid Exempt Backorders

Because we found a high percentage of invalid exempt backorders, we asked Navy officials to validate additional exempt backorders. The Navy did three validations and also found large percentages of invalid backorders. These validations covered backorders for stock replenishment, Trident submarines, and spare parts and were made both at activities we visited and did not visit.

We asked supply officials at the two inventory control points to validate the remaining universe of exempt stock replenishment backorders. The



*Ships Parts Control Center's validation effort identified 28 percent of these backorders, 1,377 backorders valued at \$8.4 million, that were for material no longer needed. The Aviation Supply Office's validation effort identified 11 percent of these backorders, 923 backorders valued at \$13 million, that were for material no longer needed.*

A Ships Parts Control Center official told us that he believed the validation results were significant and was of the opinion that these stock replenishment backorders should be included in the periodic validation process.

At our request, the Ships Parts Control Center validated exempt backorders at the two Trident submarine facilities at Kings Bay, Georgia, and Bangor, Washington. Using automated techniques, Trident program officials at the Ships Parts Control Center found that 185 of 796 backorders were potentially invalid. Supply officials at the Trident facilities conducted further validations of the 185 backorders and identified 88 invalid backorders, which represented about 11 percent of the total backorders.

In view of the importance of identifying and canceling invalid backorders, Trident program officials at the Ships Parts Control Center stated they would continue performing this validation on a quarterly basis.

After we told officials at Naval Air Station Norfolk that some spare parts were exempt from periodic validation, they requested the Aviation Supply Office to do a special validation of these backordered items. In response, the inventory control point validated 3,100 backorders at all field activities and canceled 240 invalid backorders. Aviation Supply Office officials stated that they were not certain if they would request this validation on a recurring basis.

## **Navy Officials Could Not Document the Rationale Behind the Exemptions**

Naval Supply Systems Command officials could not provide documentation for the original decisions to exempt categories of backorders from periodic validation—some of which we were told go back to the mid-1970s. The officials stated that concern that valid backorders might be erroneously canceled, causing project delays or serious harm to national security, could have prompted the decisions to exempt Trident submarine and ballistic missile ship backorders from periodic validation. Again, although uncertain as to specific reasons, the officials believed that initial ship outfitting and certain stock

replenishment backorders were exempted because funding shortfalls at the requisitioning activities would limit the generation of invalid backorders. In contrast to initial ship outfittings, the Aviation Supply Office does not exempt some initial outfitting backorders for aircraft. For example, during the January 1992 validation process, 534 invalid backorders, valued at \$11.2 million, were canceled.

Regardless of the original justifications for the exemptions, the significant percentage of invalid exempt backorders we and the Navy found is reason enough to rescind the exemptions. The backorder validation program has procedures to identify invalid backorders and, at the same time, has safeguards to minimize the risk of canceling valid backorders. Naval Supply Systems Command officials agreed that the continuing need for the exemptions should be reviewed. However, they have not initiated this review.

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## Recommendations

We recommend that the Secretary of the Navy direct the Commander, Naval Supply Systems Command, to (1) take steps to ensure that Navy field activities follow established backorder validation procedures and (2) rescind the exemptions from the backorder validation process and require that all backorders be periodically validated. Periodic visits to field activities should be one step to determine if they are following validation procedures.

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## Agency Comments

We requested written comments from DOD on January 26, 1993, but none were provided. However, we received oral comments and these are summarized below.

DOD agreed with our findings and recommendations and stated that the Naval Supply Systems Command is preparing a message to the field activities advising them of our findings and reemphasizing compliance with existing backorder validation procedures. The Command also is requesting that the validation procedures become a special interest item during command inspections at field activities.

DOD also stated that the Naval Supply Systems Command is taking action to review all backorder validation exemptions with the goal of eliminating all or as many exemptions as possible. The target completion date for this action is June 30, 1993.

## Scope and Methodology

We performed detailed audit work at 606 and Navy headquarters, the 2 Navy inventory control points, and 12 Navy field activities. At each organization visited, we interviewed responsible agency personnel and reviewed applicable policies, procedures, and documents. The Navy organizations we visited were

- Naval Supply Systems Command, Washington, D.C.;
- Aviation Supply Office, Philadelphia, Pennsylvania;
- Ships Parts Control Center, Mechanicsburg, Pennsylvania;
- Naval Air Station, Oceana, Virginia;
- Naval Air Station, Norfolk, Virginia;
- Naval Air Station, Jacksonville, Florida;
- Naval Air Station, Cecil Field, Florida;
- Naval Air Station, Mayport, Florida;
- Naval Air Station, Willow Grove, Pennsylvania;
- Naval Supply Center, Norfolk, Virginia;
- Naval Aviation Depot, Norfolk, Virginia;
- Naval Aviation Depot, Jacksonville, Florida;
- Naval Air Warfare Center, Lakehurst, New Jersey;
- Trident Refit Facility, Kings Bay, Georgia; and
- Supervisor of Shipbuilding, Newport News, Virginia.

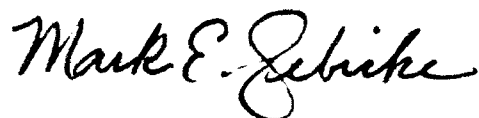
We identified internal controls for certifying the continuing need for backordered material at Navy field activities and evaluated the Navy's rationale for the exemptions from the validation process. We independently reviewed a sample of 273 backorders that had been subjected to the validation process at the 12 selected Navy activities and a sample of 209 backorders that had been exempted from validation. In addition to our validation of exempt backorders, Navy supply officials validated additional exempted backorders at our request and provided us with the results. Our review was made in accordance with generally accepted government auditing standards and was performed between January 1992 and January 1993.

As you know, 31 U.S.C. 720 requires the head of a federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs no later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Chairmen and Ranking Minority Members, House and Senate Committees on Appropriations and on Armed Services; the Chairmen, Senate Committee on Governmental Affairs and House Committee on Government Operations; the Director, Office of Management and Budget; and the Secretary of Defense.

Please contact me on (202) 512-5140 if you have any questions. The major contributors to this report are listed in appendix I.

Sincerely yours,

A handwritten signature in black ink, reading "Mark E. Gebicke". The signature is written in a cursive style with a large, stylized "M" and "G".

Mark E. Gebicke  
Director, Military Operations  
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# Major Contributors to This Report

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